DEPARTMENT OF THE NAVY



NAVAL SEA SYSTEMS COMMAND 2531 JEFFERSON DAVIS HWY ARLINGTON VA 22242-5160

IN REPLY REFER TO

NAVSEAINST 5450.55B Ser 92/015 18 Jun 01

NAVSEA INSTRUCTION 5450.55B

From: Commander, Naval Sea Systems Command

Subj: MISSION, FUNCTIONS AND TASKS OF THE SUBMARINE MAINTENANCE, ENGINEERING, PLANNING AND PROCUREMENT ACTIVITY (SUBMEPP), PORTSMOUTH, NH

Ref:

- (a) OPNAVNOTE 5450 Ser 09B22/lU510051 of 16 Apr 91
- (b) NAVSEA INSTRUCTION 5400.57B, Engineering Agent Assignment and Technical Authority
- (c) NAVSEA ltr Ser TSUB/213 of 7 Aug 2000, Delegation of Technical and Approval Authority to SUBMEPP
- (d) CINCLANTFLT/CINCPACFLTINST 4790.3, Joint Fleet Maintenance Manual
- (e) NAVSEA 0924-062-0010, Submarine Safety (SUBSAFE) Requirements Manual
- (f) NAVSEA SS800-AG-MAN-010/P-9290, System Certification Procedures and Criteria Manual for Deep Submergence Systems
- (g) OPNAVINST 4700.7J, Maintenance Policy for Naval Ships
- (h) OPNAVINST 3120.33B, Submarine Engineered Operating Cycle (SEOC) Program
- (i) NAVSEA S8200-BG-PLN-010/Life Cycle Support (OP)
 Trident Training Facility
- (j) CNO ltr Ser N879C/9U65703 of 19 Jan 99, Submarine Training Program Master Plan
- (k) ANSI/ISO/ASQ Q9001. Quality Systems--Model for Quality Assurance in Design, Development, Production, Installation and Servicing
- Encl: (1) Functions and Tasks Statement of SUBMEPP Activity
 - (2) Administrative and Management Information
- 1. <u>Purpose</u>. To update the functions and tasks of SUBMEPP under the mission established by reference (a).
- 2. Cancellation. NAVSEAINST 5450.55A of 4 Oct 1991

- 3. <u>Mission</u>. Develop Submarine Availability Work Packages (maintenance, repair and overhaul plans) and related logistics support products; integrate the requirements of NAVSEA and Submarine Type Commanders (TYCOMs) and manage advanced planning and engineering efforts for overhauls and certain other availabilities; manage programs for the procurement and restoration of shipboard equipment; perform engineering functions in support of NAVSEA Life Cycle Managers; conduct studies to develop and maintain Class Maintenance Plans for extended submarine operating cycles; support TYCOM needs in the work definition and budgeting process, and perform other functions as directed by higher authority.
- 4. <u>Status and Command Relationships</u>. SUBMEPP is a shore activity in an active status under a Commanding Officer. Enclosure (2) contains its administrative and management information. Its basic organizational information is as follows:

a. Chain of Command:

Echelon:

- 1. Chief of Naval Operations
- 2. Commander, Naval Sea Systems Command (SEA 92)
- 3. Commanding Officer, Submarine Maintenance Engineering, Planning and Procurement Activity, Portsmouth, NH

b. Area Coordination:

Area Coordinator: COMNAVREG NORTHEAST.

- c. <u>Status of Command Relationships</u>. SUBMEPP has special, continuing relationships with the following organizations:
- (1) <u>SEA 92 and PEO-SUB</u>, by this charter and prior versions, have designated SUBMEPP to centrally develop and manage life cycle maintenance and modernization programs which support safe, effective, reliable and extended operating cycles of submarines.

- (2) SEA 92 and SEA 05 have designated SUBMEPP as an Engineering Agent consistent with reference (b). SEA92, by reference (c), has delegated approval authority to SUBMEPP for unique program responsibilities. SEA05 has delegated technical authority to SUBMEPP through multiple Memorandums of Agreement (MOA) consistent with reference (b) for Life Cycle Management (LCM) functions for specific components.
- (3) COMSUBLANT and COMSUBPAC, in accordance with SUBMEPP's mission established by reference (a), have designated SUBMEPP as their Advance Planning Agent for specific ships and availabilities of all types (including overhauls, Depot Modernization Periods (DMP's) Extended Refit Periods (ERP's), Selected Restricted Availabilities (SRA's), Refits, inactivations, etc.) with authority to act as their agent in specific areas, in dealing with the Planning Yards, design agents, procurement activities and industrial activities in both the public and private sectors.
- (4) <u>CINCLANTFLT</u> and <u>CINCPACFLT</u>, by Change 1 to reference (d), designated SUBMEPP to manage the development, maintenance and distribution of reference (d).
- (5) Naval Sea Systems Command (NAVSEA), Fleet and other Activities (e.g., Ship's Force, Shipyards, Intermediate Maintenance Activities (IMA's), TRIDENT Refit Facilities (TRF's), Ship Availability Planning and Engineering Center (SHAPEC), Planning Yards, Supervisor of Shipbuilding (SUPSHIPS), Naval Inventory Control Point (NAVICP), Submarine Training Facilities, etc.) use SUBMEPP products and services to ensure that NAVSEA technical requirements are consistently executed in support of safe and reliable submarine operations.

5. <u>Supporting Activities</u>.

- a. Submarine Planning Yards, as Configuration Data Managers (CDM), provide SUBMEPP's Maintenance Planning database with configuration data necessary to establish linkage between maintenance requirements and scheduling information at the ship specific component level.
- b. Portsmouth Naval Shipyard provides SUBMEPP with certain services, supplies and assistance in accordance with a host/tenant Inter-Service Support Agreement.

- 6. <u>Functions and Tasks</u>. The functions and tasks of SUBMEPP are contained in enclosure (1).
- 7. Exception. In accordance with the NAVSEA Organizational Manual, the Deputy Commander for Nuclear Propulsion, SEA 08, is responsible for all technical matters pertaining to nuclear propulsion of U. S. naval ships and craft, including all aspects of integration of the nuclear plant into the ship system. Nothing in this instruction detracts in any way from these responsibilities. Accordingly, SEA 08 will be consulted in all matters pertaining to, or affecting, the ship's nuclear propulsion plant and associated nuclear support facilities.
- 8. <u>Action</u>. In accomplishing the assigned mission, the Commanding Officer, SUBMEPP will ensure performance of the functions and tasks listed in enclosure (1). Send recommended changes via the chain of command to Commander, Naval Sea Systems Command (SEA 92).

Distribution:

SNDL C84 COMNAVSEASYSCOM Shore Based Detachments (less C84J)
FKP COMNAVSEASYSCOM Shore Activities (less FKP24 & FKP6B)

NAVSEA Special List Y2

Copy'to:

SNDL A3 CNO FT38 NSTCPAC

21A1 CINCLANTFLT FT44 NDSTC

21A2 CINCPACFLT FT53 NPWRCHASN C21 NAVMATDATASYSGRU FT54 NAVSUBSCOL

FT88 EDOSCOL FT85 TTFB/KB

FT95 STFNORFOLK FA24 COMNAVREG NE GROTON CT

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FUNCTIONS AND TASKS OF THE SUBMARINE MAINTENANCE, ENGINEERING, PLANNING AND PROCUREMENT ACTIVITY (SUBMEPP)

Background: Submarine Maintenance Engineering, Planning and Procurement (SUBMEPP) Activity, a NAVSEA 92 Field activity, performs major functions in support of submarine life-cycle maintenance and modernization. SUBMEPP is responsible for ensuring NAVSEA technical requirements, including those of the Noise Reduction, SUBSAFE, and Deep Submergence Systems, are incorporated into all SUBMEPP maintenance products. This includes the development and maintenance of products that reflect the approved configuration of each submarine, changes in NAVSEA technical requirements, and incorporating lessons-learned through product user feedback. These products include:

- Life Cycle Class Maintenance Plans
- Maintenance Standards
- Combat Systems & HM&E Test Procedures
- URO/MRCs and DDS HIPS
- Ship Availability and Refit Work Packages
- Pre-Availability Test Procedures
- Rotatable Pool Component Procurement Specifications and Refurbishment Instructions
- Long Lead Time Material Procurement Specifications
- Material Condition Assessment reviews
- Joint Fleet Maintenance manual (JFMM)

SUBMEPP is delegated authority by reference (c) to apply NAVSEA technical direction in the development, issuance, and maintenance of SUBMEPP-managed products without further review or approval of NAVSEA for in-service submarine classes. For new construction, SUBMEPP has technical authority as granted by the applicable Program Manager.

In accordance with its Mission, SUBMEPP performs the following Functions and Tasks:

FUNCTIONS:

Life Cycle Class Maintenance Planning

SUBMEPP develops and refines Life Cycle Class Maintenance Plans

to enable extension of submarine operating cycles, support training facility unique operating profiles, reduce the frequency and scope of required maintenance, lower the level of accomplishment of maintenance and eliminate unnecessary replacement of components. Submarine life cycle class maintenance plans define what work needs to be done, by whom, and how often. Program management functions include:

- Developing and maintaining, for NAVSEA, Class Maintenance Plans (CMP) for all submarine classes and unique submarines, other submersibles, and submarine training facilities. Each plan is continually refined through engineering analysis, application of Reliability Centered Maintenance (RCM) principles, feedback from the fleet and training facilities, changes in ship configuration, changes in various technical documentation and component/system material conditions feedback.
- Performing technical studies to determine feasibility of extending submarine operating cycle and intervals between availabilities.
- Managing the Maintenance Planning Feedback Program which validates the existing Class Maintenance Plans and provides an engineering basis to support development of operating cycles and maintenance planning for new classes of submarines.
- Developing and maintaining training facility overhaul schedules for all submarine training facilities.

SUBMEPP's Life Cycle Class Maintenance Plans (CMPs) execute the requirements of reference (g) and (h). Submarine Training Facility Overhaul Schedules are required by references (i) and (j). Maintenance Planning is essential to safe, reliable and cost effective submarine maintenance.

Ship Availability Planning

SUBMEPP develops Ship Availability Work Packages from Class Maintenance Plans. These Work Packages serve as the contract for major submarine repair and modernization work performed by public and private industrial facilities for all CNO scheduled

depot availabilities. Program management functions include:

- Maintaining, for Type Commanders, Baseline Availability Work (BAWP) for all submarine classes and unique submarines, and other submersibles. These BAWPs identify all depot level planned maintenance requirements for CNO scheduled availabilities.
- Creating, for all ship depot availabilities, ship specific Availability Work Packages that fully integrate all work from multiple sources for the availability, and identify all significant components associated with each ship.
- Maintaining and analyzing a historical return cost database that contains cost information at the SWLIN level for submarine depot availabilities. This return cost database provides the TYCOMs with the ability to budget and assess estimates for future availabilities.

Intermediate and Organizational Level Support

SUBMEPP tracks and schedules the accomplishment of planned maintenance actions at the shipboard level and provides an interface with Type Commanders (TYCOMs) data systems to assist with scheduling of the work and ordering of associated mandatory and contingency material by the IMA. Program Management functions include:

- Scheduling and monitoring the completion of non-nuclear submarine I-level periodic maintenance requirements including Unrestricted Operations/Maintenance Requirement Cards (URO/MRCs), Dry Deck Shelter/Hull Integrity Procedures (DDS/HIPs) requirements and their requisite Objective Quality Evidence (OQE). These schedules are provided to Squadrons and IMAs for execution.
- Managing and maintaining the Master Job Catalog for the TYCOMs.

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Maintenance Instruction Documents

SUBMEPP develops and maintains a substantial library of NAVSEA technical documents, including Maintenance Standards, URO/MRC, DDS/HIPS, and standardized test documents (Combat Systems (CS); Hull, Mechanical & Electrical (HM&E); and Pre-arrival Test (PAT)) which levy requirements on submarines and submarine maintenance activities. SUBMEPP's centralized management of these documents ensures technical requirements are consistent and reduce planning, engineering, and execution costs at industrial activities. These documents implement the requirement of the Class Maintenance Plans and execute the requirements of references (e), (f), and (h) to ensure continued safe and reliable operations of submarines. Program management functions include:

Maintenance Standards

SUBMEPP, as NAVSEA's designated technical manager for submarine non-nuclear maintenance standard programs, prepares, approves, publishes, distributes and maintains Maintenance Standards (MSs) for all submarine classes. MSs specify the minimum technical requirements for acceptable inspection and refurbishment of submarine components including component testing/inspection criteria and parts replacement information.

URO MRC/DDS HIPS

SUBMEPP, as NAVSEA's agent for the URO Program:

- Collects, analyzes and technically evaluates the results of inspections specified in URO MRCs and DDS HIPS and uses the analysis results to recommend changes in component and system design, technical requirements, and inspection periodicities.
- Maintains URO MRC and DDS HIPS libraries current.

Standardized Test Procedures

SUBMEPP, as NAVSEA's designated Test Development Director for Combat Systems, HM&E and Pre-Arrival Test Procedures,

Enclosure (1)

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prepares new tests or reviews tests prepared by NAVSEA technical activities, reviews all technical changes, resolves all reported test problems, defines system/equipment maintenance requirements, reviews ShipAlts, and integrates maintenance, ShipAlt and testing requirements during the work package preparation process. Standardized Test Procedures (STPs) ensure that the Combat and HM&E Systems are properly tested, certified, and fully operational for all submarines classes.

Material Support Programs

SUBMEPP manages material programs which identify, budget for, procure, and position selected material required for maintenance on extended cycle submarines. These programs maintain rotatable pools for major equipment, procure material with long lead times, and forecast material requirements. Program Management functions include:

- Developing component procurement and refurbishment technical specifications.
- Overseeing component procurement and refurbishment contracts, inventory, and government tasks.
- Reviewing component performance data.
- Procuring non-standard material with extended procurement lead times to support the installation of NAVSEA and TYCOM ShipAlts on submarines.
- Identifying long lead time non-standard material, developing procurement contracts, reviewing contract acceptance data, and overseeing the storage and shipment of the material.
- Identifying and forecasting certain piece parts necessary to support the accomplishment of planned, non-nuclear Intermediate and Depot Level maintenance of submarines. This function supports the supply system managers in the effective and timely procurement of submarine material.

The SUBMEPP Material Support Programs execute the requirements of reference (g). By pre-staging ready-to-install equipment and replacement parts, these programs effectively reduce in-port repair time, minimize maintenance costs and increase at sea time for submarines.

Enclosure (1)

1.8 JUN 2001 Quality Management Program

SUBMEPP ensures quality of operations through a Quality Management Program. The Quality Management Program complies with reference (k) and establishes a policy for continuous improvement of that system.

Submarine Silencing Program

SUBMEPP ensures that NAVSEA Noise Reduction program requirements, including those related to noise critical equipment procured or refurbished by SUBMEPP programs, are incorporated into all SUBMEPP products; and ensures that modification and maintenance of noise critical components or systems does not negate the built-in silencing features of that component or system.

Submarine Safety/Deep Submergence Systems Oversight

In compliance with reference (e) and (f), SUBMEPP ensures dissemination and effective and timely implementation of SUBSAFE and Deep Submergence Systems Program requirements in SUBMEPP Programs, and coordinates with the NAVSEA Submarine Safety Office and outside activities in SUBSAFE and Deep Submergence Systems matters.

Financial Control and Cost Analysis

SUBMEPP is a Modified Resource Management Systems (RMS)
Activity. Operating budget plans include overhead funding received via an Expense Operating Budget and customer money received via reimbursable documents for the accomplishment of "Centrally Managed Programs."

SUBMEPP is responsible for the administrative control of funds for task assignments issued by them to other naval activities, for contract work with private companies and for material procurements. When authorized to assign tasks to other naval activities and contractors, SUBMEPP is responsible for establishing funding controls and requiring cost and progress reports which will provide timely cost information and cost trends to forewarn underruns and overruns.

TASKS:

Joint Fleet Maintenance Manual (JFMM)

SUBMEPP, as tasked by CINCLANTFLT and CINCPACFLT, manages the development, maintenance and distribution of the Joint Fleet Maintenance Manual (JFMM), reference (d), which standardizes and consolidates maintenance, quality control and quality assurance requirements across all Naval TYCOMs.

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ADMINISTRATIVE AND MANAGEMENT INFORMATION

- 1. Plain Language Address (PLA)/Abbreviation Name of Activity: SUBMEPP PORTSMOUTH NH
- 2. Mailing Address:

Commanding Officer SUBMEPP Activity PO Box 7002 Portsmouth, NH 03802-7002

3. Title of Senior Officer:

Commanding Officer

- 4. Chain of Command:
 - a. Echelon:
 - 1. Chief of Naval Operations
 - 2. Commander, Naval Sea Systems Command (SEA 92)
 - 3. Commanding Officer, Submarine Maintenance Engineering, Planning and Procurement Activity, Portsmouth, NH
 - b. Area Coordination:

Area Coordinator: COMNAVREG NORTHEAST

- 5. Unit Identification Code (UIC): 45404
- 6. Standard Navy Distribution List (SNDL): FKP26